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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

COLAIANNI, MICHAEL

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 03/03/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,858

Applicant(s)

Wang et al.

Examiner

Michael Colaanni

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 5, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above, claim(s) 17, 18, and 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19-22, and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4, 5, 7 6) ☐ Other:

Art Unit: 1731

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, 19-22, 26-33, drawn to a method of making insulating glass window units, classified in class 65, subclass 41.
 - II. Claims 17-18, 23-25, drawn to an insulating glass window unit, classified in class 428, subclass 34.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by another and materially different method, such as bonding the glass sheets using UV curable resin or resistance heaters to bond the glass sheets together.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Art Unit: 1731

5. During a telephone conversation with Joseph Rhoa on February 19, 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-16, 19-22, 26-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-18, 23-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) .

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 27-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 line 5 is missing a word between "at" and "one".

Art Unit: 1731

Claim 28, line 1 is missing a word between "said" and "is".

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

11. Claims 12 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Collins et al. US 2002/0046797 A1.

Collins teaches thermally tempering glass sheets with a layer of edge seal material thereon (paragraph 0022); providing additional on top of the first deposited edge seal material after tempering; providing a plurality of spacers between the tempered glass sheets (paragraphs 0029, 0028); and forming a seal located at least partially between the substrates by heating at least the additional edge seal material so that the edge seal material fuses with or bonds to the edge seal material deposited on the glass substrate prior to tempering (paragraph 0030).

Art Unit: 1731

12. Claims 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. 6109994.

Cho et al. teach providing first and second substrates with a plurality of spacers therebetween and forming a hermetic peripheral edge seal between the two substrates using microwave energy (col. 7, lines 33-49, claim 8).

Moreover, Cho et al. teach that a vacuum is applied to the sandwich structure (col. 12, lines 29-41).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1731

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
15. Claims 1-10, 13-16, 19-20, 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins US 2002/0046797 A1 in view of Cho et al. 6109994.

Collins teaches applicant's claimed invention. See the 35 U.S.C. §102(e) rejection for Collins teachings. Collins also teaches that the temperature of the glass sealing process is kept low to prevent significant stress relaxation in the tempered glass sheets (paragraph 0025). Given this teaching, it would have been obvious to maintain 80% or less of the tempered glass' original temper strength. Collins also teaches evacuating the space between the glass substrates (paragraph 0002). Collins also teaches that the first layer of bonding material is heated to a high temperature to effect diffusion of the bonding material into the substrate (paragraphs 0022, 0025, the "higher temperatures" language in paragraph 0025 renders 600-700°C obvious). However, Collins does not teach using microwave energy as the heat source.

However, Cho et al. teach that it is known to use microwave energy to selectively bond the glass panels together (claim 8). Moreover, the use of particular wavelengths of microwave radiation would have been obvious because the particular wavelength used would depend on the material being treated. The amount of microwave absorption would dictate which wavelength to use to most effectively heat the glass.

It would have been prima facie obvious at the time the invention was made to combine Cho et al.'s teaching of using microwave energy to bond two substrates together with Collin's

Art Unit: 1731

method of bonding substrates because doing so would permit the selective heating and bonding of the glass substrates without removing the stress profile of the glass sheets. Collin's teaches that it is important to prevent annealing the glass during the heating process (paragraphs 0025, 0008).

16. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collins US 2002/0046797 A1 in view of Selfkowitz et al. H975.

Collins teaches applicant's claimed invention. See the 35 U.S.C. §102(e) rejection for Collins et al.'s teachings. However, Collins does not teach placing an E-coating on the on the substrates.

However, Selfkowitz teaches that it is well known to place an E-coating on the glass substrates to further enhance the thermal insulative value of the insulated glass without the added weight or bulk of additional glass panes (col. 1, lines 40-46).

It would have been prima facie obvious at the time the invention was made to combine Selfkowitz's E-coating with Collin's method of making vaccum glazings because doing so would increase the thermal efficiency of the insulated glass panels without adding additional weight or bulk as taught by Selfkowitz.

Double Patenting

17. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention,"

Art Unit: 1731

in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

18. Claims 1, 12, 21, 22, 27-33 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 12-13, 21 of copending Application No. 09/722008. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

19. Claims 21-22 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-15 of prior U.S. Patent No. 6478911. This is a double patenting rejection.

20. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 1731

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

21. Claims 1-16, 19-22, 26-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14, 21 of copending Application No. 09/722008. Although the conflicting claims are not identical, they are not patentably distinct from each other because the combination of steps claimed in this application is clearly disclosed in application 09/722008 along with the application of the second coating layer atop the primary coating layer. One of ordinary skill in the art would quickly recognize the ability to use a two layer bonding material.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

Art Unit: 1731

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

A handwritten signature in black ink, appearing to read "Michael Colaianni", with a long horizontal stroke extending to the right.

Art Unit 1731
February 27, 2003

MICHAEL COLAIANNI
PRIMARY EXAMINER